



Machine Id
STAN HUMPHREYS
Component
Starboard Reduction Gear
Fluid
CHEVRON DELO 400 LE 15W40 (35 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0057798	MW0057941	MW0057929
Sample Date		Client Info		07 Apr 2024	12 Mar 2024	16 Oct 2023
Machine Age	hrs	Client Info		23487	23173	21584
Oil Age	hrs	Client Info		933	475	482
Filter Age	hrs	Client Info		340	475	482
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				MARGINAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	54	64	57
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		11	12	11
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	2	2
Lead	ppm	ASTM D5185m	>100	0	<1	0
Copper	ppm	ASTM D5185m	>50	25	26	31
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

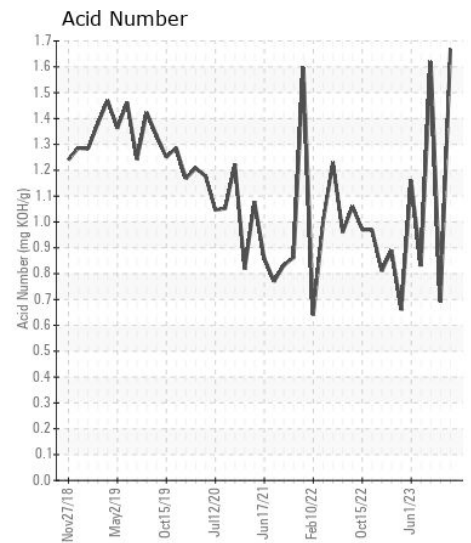
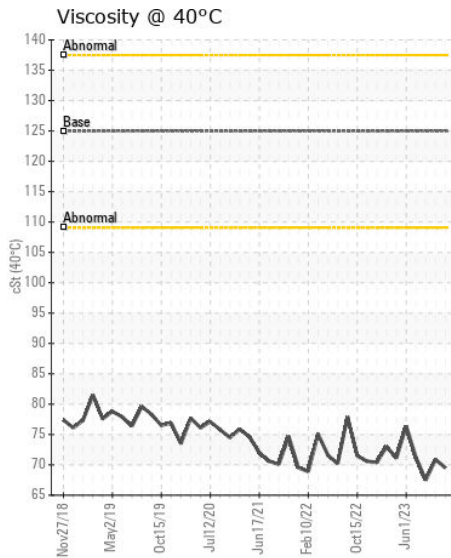
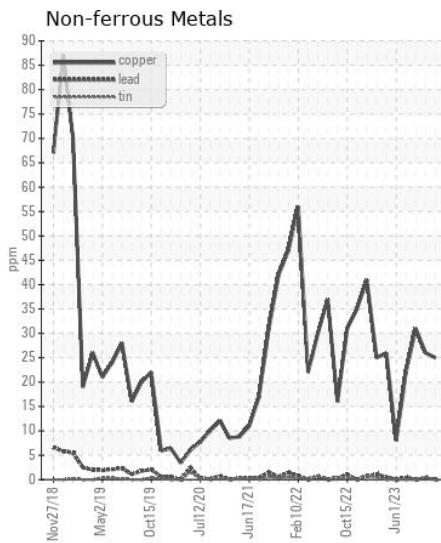
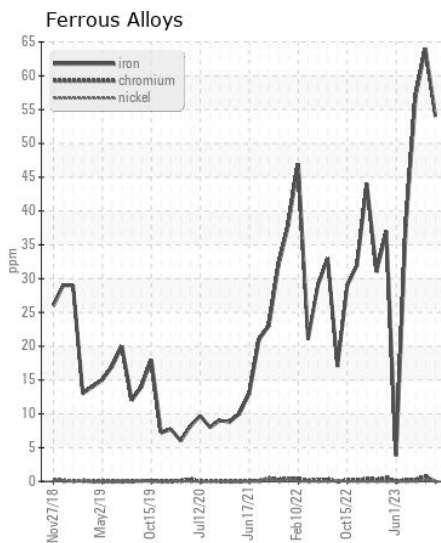
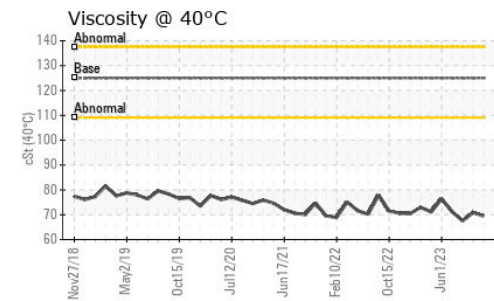
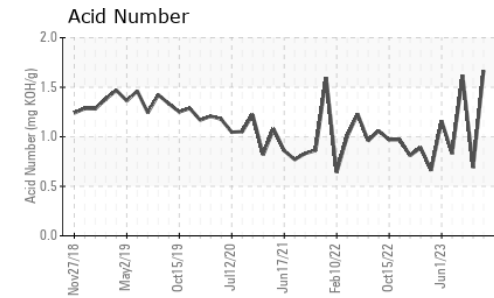
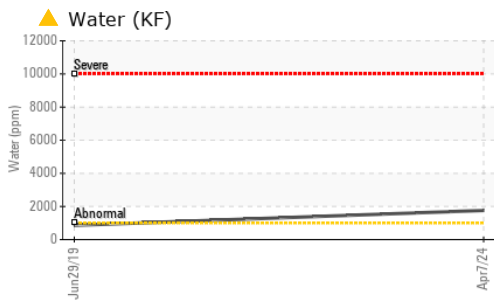
There is a light concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>50	4	6	4
Potassium	ppm	ASTM D5185m	>20	0	3	2
Water	%	ASTM D6304	>0.1	▲ 0.176	---	---
ppm Water	ppm	ASTM D6304	>1000	▲ 1760	---	---
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	0.2%	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		5	2	5
Boron	ppm	ASTM D5185m		176	214	219
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		54	65	64
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		601	716	677
Calcium	ppm	ASTM D5185m		1433	1648	1561
Phosphorus	ppm	ASTM D5185m	1200	637	756	795
Zinc	ppm	ASTM D5185m	1300	681	851	809
Sulfur	ppm	ASTM D5185m	3200	2746	3187	2956
Acid Number (AN)	mg KOH/g	ASTM D8045		1.668	0.69	1.62
Visc @ 40°C	cSt	ASTM D445	125	69.5	70.9	67.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0057798 **Received** : 15 Apr 2024
Lab Number : 06149559 **Tested** : 17 Apr 2024
Unique Number : 10979637 **Diagnosed** : 17 Apr 2024 - Don Baldrige
Test Package : MAR 2 (Additional Tests: KF)

MAGNOLIA MARINE TRANSPORT
 697 HAINING ROAD
 VICKSBURG, MS
 US 39183
 Contact: MMT MAINTENANCE PLANNERS
 mmtmaintenanceplanners@ergon.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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